

What is claimed is:

1. A method of detecting an individual at risk for coronary artery disease comprising: obtaining a biological sample from said individual; and assaying for the level of  $\gamma A/\gamma'$  fibrinogen present in said sample, wherein an elevated  $\gamma A/\gamma'$  fibrinogen level as compared with that of a person with no risk factor for coronary artery disease, is associated with an increased risk of developing coronary artery disease.
- 10 2. The method of claim 1 wherein the assaying includes the steps of: (a) contacting the biological sample with an antibody reactive only with  $\gamma A/\gamma'$  fibrinogen or parts thereof to form a complex; and (b) detecting said complex.
- 15 3. The method of claim 2 wherein the antibody is a monoclonal antibody.
4. The method of claim 3 wherein the monoclonal antibody is reactive with the carboxyl terminal twenty amino acids of the  $\gamma'$  chain of  $\gamma A/\gamma'$  fibrinogen.
- 20 5. The method of claim 4 wherein the monoclonal antibody binds to SEQ ID NO:1.
6. The method of claim 3 wherein the monoclonal antibody is bound or captured to an antigen in said biological sample.
- 25 7. The method of claim 2 wherein the detecting step further includes the substep of linking or incorporating a label into the antibody.
8. The method of claim 7 wherein the label is a radioisotope-containing amino acid.

9. The method of claim 1 wherein the elevated  $\gamma$ A/ $\gamma$ ' fibrinogen level is greater than 0.29 mg/ml.

10. The method of claim 1 wherein the elevated  $\gamma$ A/ $\gamma$ ' fibrinogen level is  
5 greater than 0.41 mg/ml.

11. A monoclonal antibody which reacts with  $\gamma$ A/ $\gamma$ ' fibrinogen or portions thereof.

10 12. The monoclonal antibody of claim 11 which reacts with the  $\gamma$ ' chain of  $\gamma$ A/ $\gamma$ ' fibrinogen.

15 13. The monoclonal antibody of claim 11 that does not cross-react measurably with  $\gamma$ A/ $\gamma$ A fibrinogen.

14. The monoclonal antibody of claim 12 which binds the carboxyl terminal twenty amino acids of the  $\gamma$ ' chain of  $\gamma$ A/ $\gamma$ ' fibrinogen.

20 15. The monoclonal antibody of claim 14 which binds SEQ ID NO:1.

16. A hybridoma that produces antibody molecules that specifically immunoreact with a binding site on  $\gamma$ A/ $\gamma$ ' fibrinogen.

25 17. A method for detecting *in vivo* the presence of a  $\gamma$ A/ $\gamma$ ' fibrinogen receptor comprising the steps of: (a) intravenously administering to an animal subject an effective amount of a monoclonal antibody composition comprising antibody molecules that immunoreact with  $\gamma$ A/ $\gamma$ ' fibrinogen; (b) maintaining the administered subject for a predetermined time period sufficient for said antibody molecules to immunoreact with said  $\gamma$ A/ $\gamma$ ' fibrinogen *in vivo* and form  
30 an immunoreaction product; and (c) assaying for the presence of any *in vivo*

immunoreaction product formed in step (b) and thereby the presence of said  $\gamma$ A/ $\gamma'$  fibrinogen in said subject.

18. The method of claim 17 wherein the antibody molecules are  
5 administered in an amount sufficient to deliver and produce a blood  
concentration of antibody molecules of about 0.1-10mM.

19. The method of claim 17 wherein the administered subject is maintained  
for a time sufficient for a substantial amount of any non-reacted antibody  
10 molecules to clear the body.

20. A kit for determining whether a biological sample contains  $\gamma$ A/ $\gamma'$  fibrinogen comprising: (a) a monoclonal antibody which reacts with  $\gamma$ A/ $\gamma'$  fibrinogen or portions thereof to form a complex; and (b) a label or other  
15 indicating means capable of signaling the formation of complex.

21. The kit of claim 20 wherein the monoclonal antibody reacts with the  $\gamma'$  chain of  $\gamma$ A/ $\gamma'$  fibrinogen.

20 22. The kit of claim 20 wherein the monoclonal antibody binds the carboxyl  
terminal twenty amino acids of the  $\gamma'$  chain of  $\gamma$ A/ $\gamma'$  fibrinogen.

23. The kit of claim 22 which binds SEQ ID NO:1.

25 24. The kit of claim 20 further including a specific binding agent.

25. The kit of claim 24 wherein the specific binding agent is selected from  
the group consisting of antibody molecules, complement proteins, and  
fragments thereof.

30 26. The kit of claim 20 wherein the specific binding agent is labeled.